

DEPARTMENT of ENVIRONMENTAL SERVICES  
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

**MORPHOMETRIC:**

Lake: ROCK POND	Lake Area (ha):	2.83
Town: MILLSFIELD	Maximum depth (m):	5.1
County: Coos	Mean depth (m):	1.6
River Basin: Androscoggin	Volume (m <sup>3</sup> ):	46500
Latitude: 44°43'56" N	Relative depth:	2.6
Longitude: 71°14'20" W	Shore configuration:	1.34
Elevation (ft): 1880	Areal water load (m/yr):	32.86
Shore length (m): 800	Flushing rate (yr <sup>-1</sup> ):	20.00
Watershed area (ha): 166.4	P retention coeff.:	0.42
% watershed ponded: 0.0	Lake type:	natural

<b>BIOLOGICAL:</b>	9 February 1994	3 August 1993
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DOM. PHYTOPLANKTON (% TOTAL)	#1	SPARSE - MOSTLY	GLOEOCYSTIS 35%
	#2	ASTERIONELLA	MICROCYSTIS 25%
	#3		ASTERIONELLA 15%
PHYTOPLANKTON ABUNDANCE (cells/mL)			265
CHLOROPHYLL-A (µg/L)			1.64
DOM. ZOOPLANKTON (% TOTAL)	#1	KELLICOTTIA 56%	NAUPLIUS LARVA 66%
	#2	CYCLOPOID COPEPOD 21%	KELLICOTTIA 30%
	#3	KERATELLA 16%	
ROTIFERS/LITER		52	78
MICROCRUSTACEA/LITER		17	183
ZOOPLANKTON ABUNDANCE (#/L)		70	262
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			2.9
BOTTOM DISSOLVED OXYGEN (mg/L)			0.3
BACTERIA (E. coli, #/100 ml)	#1		1
	#2		
	#3		

**SUMMER THERMAL STRATIFICATION:**

stratified

Depth of thermocline (m):	3.4
Hypolimnion volume (m <sup>3</sup> ):	1500
Anoxic volume (m <sup>3</sup> ):	1500

**CHEMICAL:**

Lake: ROCK POND  
Town: MILLSFIELD

	9 February 1994		3 August 1993		
DEPTH (m)	1.0		1.5		4.0
pH (units)	6.4		6.6		6.3
A.N.C. (Alkalinity)	3.7		5.7		7.3
NITRATE NITROGEN	0.26		< 0.02		< 0.02
TOTAL KJELDAHL NITROGEN	0.20		0.59		0.48
TOTAL PHOSPHORUS	0.005		0.016		0.020
CONDUCTIVITY ( $\mu$ mhos/cm)	28.1		27.2		29.1
APPARENT COLOR (cpu)	28		70		55
MAGNESIUM			0.60		
CALCIUM			2.9		
SODIUM			1.1		
POTASSIUM			0.43		
CHLORIDE	< 2		< 3		< 3
SULFATE	6		3		4
TN : TP	92		37		24
CALCITE SATURATION INDEX			3.5		

All results in mg/L unless indicated otherwise

**TROPHIC CLASSIFICATION: 1993**

D.O. S.D. PLANT CHL TOTAL CLASS

4	3	3	0	10	Meso.
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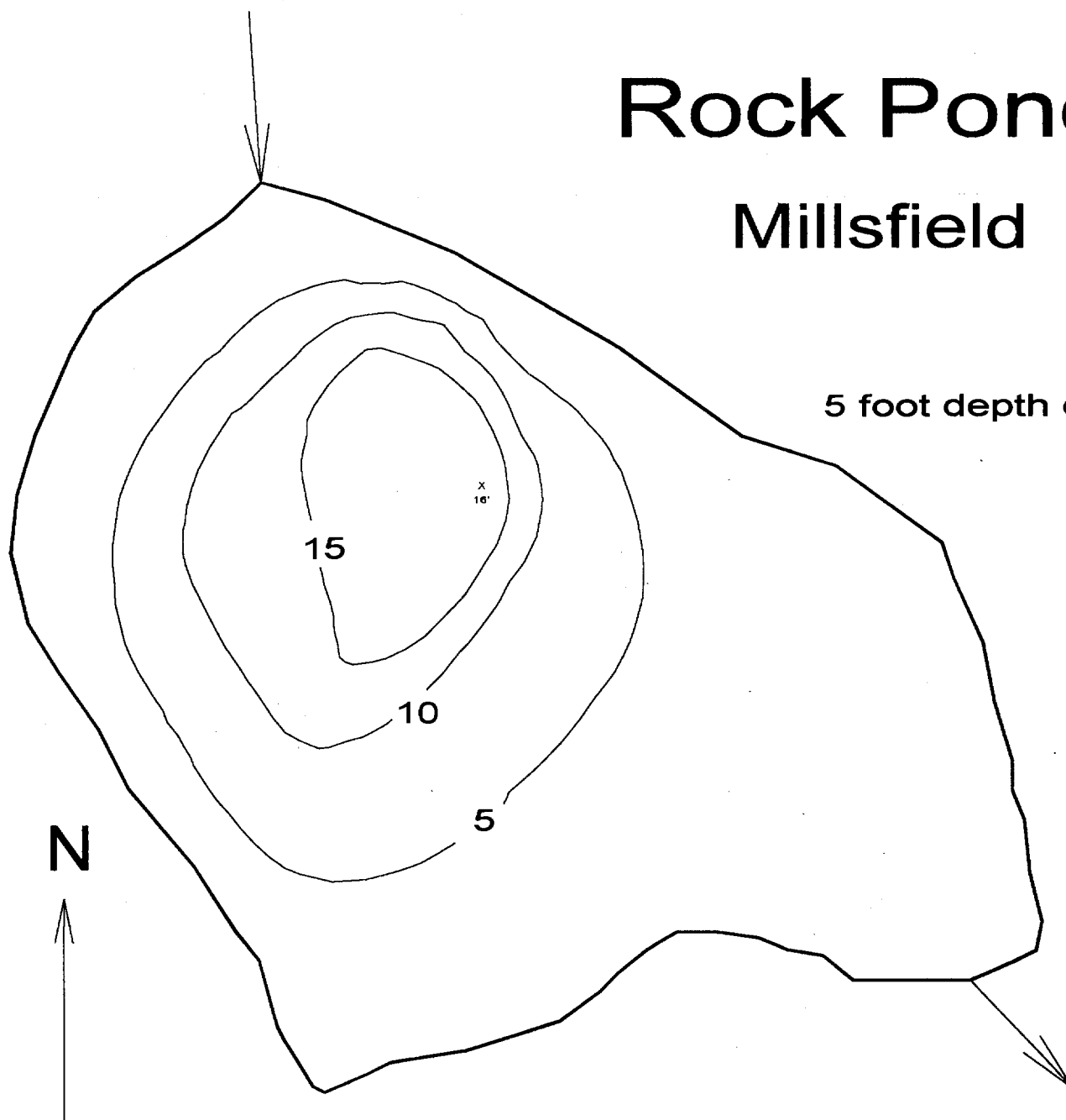
**COMMENTS:**

1. This is a remote pond sampled cooperatively with the NH Fish and Game Department.
2. Numerous signs of the presence of moose in the area were observed.
3. An abundant zooplankton community was present, but with little variety.
4. Cryptomonas (25%) was the dominant genus of wholewater phytoplankton. Five other genera had similar abundances, each representing 10 to 15% of the phytoplankton community (Mallomonas, Chroomonas, Schroederia, Merismopedia, and tiny green flagellates).

# Rock Pond

## Millsfield

5 foot depth contours



15

10

5

x  
16'

N

0

0.1

Km

[illegible]

TOWN: MILLSFIELD  
WEATHER: PARTLY CLOUDY; CALM & WARM

[illegible]

**COMMENTS:** Temperature profile indicated no well-mixed epilimnion was present; surface warming had occurred during the day without subsequent mixing.

**\*Dissolved oxygen values are in mg/L**

[illegible]

# 0.1

**Km**

[illegible]